

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. Canceled.
2. Canceled.
3. Canceled.
4. Canceled.
5. Canceled.
6. Canceled.

7. (New) An asymmetric annuloplasty device for supporting a heart valve in a patient, the heart valve having an annulus and a plurality of leaflets, and the device comprising:
a ring-shaped member configured for fixation to the annulus and extending around a central axis along which blood is adapted to flow in a downward direction when said ring-shaped member is fixed to the annulus, wherein said ring-shaped member is elongated along a first, major axis relative to a second, minor axis perpendicular to said first, major axis, said second, minor axis bisecting said ring-shaped member along said first, major axis, and said ring-shaped member being asymmetrically shaped about said second, minor axis, and wherein a first segment of said ring-shaped member extends downward relative to a second segment of said ring-shaped member in the direction of blood flow through said ring-shaped member when

the ring-shaped member is fixed to the annulus to promote coaptation between the plurality of leaflets.

8. (New) An asymmetric annuloplasty device for supporting a heart valve in a patient, the heart valve having an annulus and a plurality of leaflets, and the device comprising:

a ring-shaped member configured for fixation to the annulus and extending around a central axis along which blood is adapted to flow in a downward direction when said ring-shaped member is fixed to the annulus, wherein said ring-shaped member is elongated along a first, major axis relative to a second, minor axis perpendicular to said first, major axis, said second, minor axis bisecting said ring-shaped member along said first, major axis, wherein a first segment of said ring-shaped member extends downward relative to a second segment of said ring-shaped member in the direction of blood flow through said ring-shaped member when the ring-shaped member is fixed to the annulus and said ring-shaped member further defining a smaller area on one side of said second, minor axis than on an opposite side of said second, minor axis to promote coaptation between the plurality of leaflets.

9. (New) A method for improving the function of a heart valve in a patient having a valve annulus and a plurality of leaflets adapted to intermittently open and close to allow and prevent blood flow through the valve, the method comprising:

providing a ring-shaped member configured for fixation to the annulus and extending around a central axis along which blood is adapted to flow in a downward direction when said ring-shaped member is fixed to the annulus, wherein said ring-shaped member is elongated along a first, major axis relative to a second, minor axis perpendicular to said first, major axis, said second, minor axis bisecting said ring-shaped member along said first, major axis, and said ring-shaped member being asymmetrically shaped about said second, minor axis, and wherein a first segment of said ring-shaped member extends downward relative to a second segment of said ring-shaped member in the direction of blood flow through said ring-shaped member when the ring-shaped member is fixed to the annulus to promote coaptation between the plurality of leaflets, and

fixing the ring-shaped member to the valve annulus with the first segment of the ring-shaped member extending downward in the direction of blood flow through the heart valve relative to the second segment.

10. (New) A method for improving the function of a heart valve in a patient having a valve annulus and a plurality of leaflets adapted to intermittently open and close to allow and prevent blood flow through the valve, the method comprising:

providing a ring-shaped member configured for fixation to the annulus and extending around a central axis along which blood is adapted to flow in a downward direction when said ring-shaped member is fixed to the annulus, wherein said ring-shaped member is elongated along a first, major axis relative to a second, minor axis

perpendicular to said first, major axis, said second, minor axis bisecting said ring shaped member along said first, major axis, wherein a first segment of said ring-shaped member extends downward relative to a second segment of said ring-shaped member in the direction of blood flow through said ring-shaped member when the ring-shaped member is fixed to the annulus and said ring-shaped member further defining a smaller area on one side of said second, minor axis than on an opposite side of said second, minor axis to promote coaptation between the plurality of leaflets, and

fixing the ring-shaped member to the valve annulus with the first segment of the ring-shaped member extending downward relative to the second segment in the direction of blood flow through the heart valve.